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WILD PLANTS OF ECONOMIC VALUE

MOKI-OONE

137 824 In Thomson's version (215, p. 527) of the Hotu-matua legend it is said that after they landed, the king and his followers lived on nuts of a creeping plant (*moki-oone*) found growing along the ground, while waiting for their introduced plants to grow. I was unable to get information about the *moki-oone* which may have either disappeared or become known under another name.

BULRUSHES

Bulrushes, *ngaatu* (*Scirpus riparius* var. *paschalis*) are abundant in crater lakes (*rano*). They grow particularly high and large in Rano-kao. Formerly *ngaatu* were of great economic value to the natives who used them for covering their huts and for making sleeping mats, baskets, and fishing floats. They compensated to some extent for the lack of wood on the island.

NIGHTSHADE

Nightshade (*Solanum forsteri*) is called *poporo* by the islanders. On some native plantations Forster (82, p. 578) noticed "a species of nightshade [*Solanum nigrum?*], which is made use of at Taheitee and the neighbouring islands as a vulnerary remedy and may, for ought I know, be cultivated here for the same purpose." La Pérouse (130, vol. 1, p. 76) mentions as a food "a small fruit which grows on the rocks at seaside, resembling the bunches of raisins found in the neighbourhood of the tropics in the Atlantic Ocean." He probably alludes to the *poporo*, which he correctly classifies as a *Solanum*. La Pérouse and his naturalist, De Langle, believed nightshade was a cultivated plant, but present islanders deny it; they told me that its berries were eaten by children and adults only in time of famine. The *poporo* grows wild near the settlements, especially in cultivated fields.

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PLANTS EATEN IN TIME OF FAMINE

261 137 824 278 Several other plants were used as food only in time of famine. The *huataru* (*Chenopodium ambiguum*), of which the vegetative parts were occasionally eaten, is a very common Easter Island plant. Like the old Hawaiians, Easter Islanders were sometimes forced to eat the stems and roots of the beach morning-glory, *tanoa* (*Ipomoea pes-caprae*). The *here-po* mentioned by Cooke (54, p. 777) as edible and described as "ice-plant" was undoubtedly *Tetragonia expansa*. *Kavakava-atua*, a fern, is mentioned among the plants which grew as products of a king's power. The natives used it as a medicine and only occasionally as food. The roots of another fern, *riku*, and those of the *hikikioe* (*Cyperus vegetus*) were eaten when no other food was available. Berries called *pua-nakonako* were also considered edible.

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Ngaoho

Ngaoho (*Caesalpinia bonduc*) is almost extinct. According to Knoche (123, p. 123) it was used as a medicine. Its fibers were resorted to for tying together pieces of wood in canoes or fastening poles of hut frames. Fuentes (208, vol. 2, p. 72) says that the natives listed *ngaoho* as a plant introduced by their ancestors, but both Skottsberg and my informants consider it to be indigenous.

Moss

Para (*Campylopus turficola*) is a green moss which covers the lakes of the craters. It is mentioned by Routledge as a *Sphagnum*. Skottsberg (208, vol. 2, p. 501) says explicitly that he has not found *Sphagnum* in the lake, but in its place a species of *Campylopus* which forms a peat. The peat was gathered, washed and dried to be used in the preservation of water. The moss was also used to stop the chinks of canoes.

Seaweed

Rollin, one of the officers under La Pérouse (130, vol. 2, p. 240), noticed that some of the Easter Islanders were eating "a species of marine *fucus*, which they gather on the shore." The names of the edible seaweed are *miritonu*, *miritonu mama*, *auke*, and *ringaringa-pea*. Nowadays only children enjoy eating seaweed.

Fire

Although the use of matches became general on the island after 1880, the ancient method of making fire by rubbing is still remembered. From what I could learn, *hau* wood (*Triumfetta semitriloba*) was the best for making fire, but a harder wood might have been used (215, p. 471). A rubbing stick preserved in the Anthropological Museum, Berkeley (1142), is made of a light material, probably *hau*. It is 185 mm. long and the tapering end is slightly curved upward. The operator, sitting on the floor, held the stick with both hands and, pressing hard, rubbed it along a longitudinal groove in another piece of *hau* or paper mulberry. The hearth was probably held in place with the foot or by an assistant. Friction ignited some fibers placed at the end of the groove as tinder. The whole operation took between five and ten minutes. *Hau* wood is soft and its particles smolder and glow easily. Therefore, it is very unlikely that the natives kept permanent fires, attended by special watchers, in order to spare themselves the trouble of producing fire by the usual method (56).

During our trip round the island the natives who accompanied us always found sufficient fuel for their fires. They gathered small twigs and dry branches or cut branches of the *miro-tahiti* which grows on several points of

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755 757 The first part of the most common treatment consisted of steaming the sick man, a practice which may have had a magical significance. A ditch, as long as a man, was dug in the ground. Heated stones were scattered in the bottom and covered with a thick layer of banana leaves and grass upon which the patient was laid. Heat and steam were believed to have a favorable action upon his health. After the steaming, the *ivi-atua* completed the cure. First he entered the sick man's hut and stayed there for a long time, trying to learn which spirit had entered the patient. He then held a mysterious conversation with the god or demon who had taken possession of the man's body. This interview was considered very beneficial to the patient. If the demon proved reluctant to leave the sick man, the *ivi-atua* conducted a violent expulsion. The hut was closed; sometimes it was covered with a net. The *ivi-atua* chased the demon and, taking up the clothes of the sick man, he shouted, "Light a fire." Holding the object in which the demon was supposed to be, he ran toward the fire and threw his bundle into it. He remained beside the hearth until everything was burned; then he returned to his patient and said to him, "Now you are in good health." In a severe case the *ivi-atua* might burn the house. He stayed near the fire trying to capture the demon or to keep it in the flame. If, despite all his efforts, the patient died, death was attributed to another spirit (*akuaku*) who had taken possession of him. The *ivi-atua* received food and carved objects of wood as reward for his services.

757 The medical art included much knowledge and many practices which were efficient aids in healing, and probably was far richer than our present information shows. Massage was used on tired people. Thomson (215, p. 571) tells that during his trip around the island he fell down completely exhausted several times. He yielded " . . . to the dexterous kneadings and frictions and palmings and pinchings of those skilled in the treatment," and adds that " . . . the hardfisted native is by no means gentle in the operation, but with palms and knuckles vigorously tests every muscle and tendon, as well as every joint of the vertebrae, until the exhausted patient sinks into a state of oblivious somnolence." A most popular method of removing stomach pains, especially those produced by starvation, was to bind a cord tightly around the waist. [846] Another method was to pile on the stomach a large heap of stones. This treatment is similar to that practiced by Easter Island women after childbirth in which they pressed their wombs with stones to prevent the formation of folds (121, p. 660).

278 The Easter Island pharmacopoeia was probably small. The flora of the island is extremely poor and I doubt if there are many plants with medical virtues. The present natives, when asked about their local drugs, mentioned only the introduced bamboo (*kohe*), which is said to be good for toothache when boiled or roasted and placed on the aching tooth. Thomson (215, p. 471) writes: "The thistle is bruised and applied to sores and ulcers, arrow-

1: Metraux E-5 (1934-1935) 1940
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root is used for burns, and a species of nightshade is used as a vulnerary remedy." Sea water is drunk as a purgative. The introduced verbena (*puringa*) is used as a remedy against leprosy. Knoche (123, p. 195) mentions a decoction of ti as a remedy but he does not say for what it is used and modern natives know nothing about its medicinal use. They rely mostly on European remedies.

RECREATION

FEASTS

Modern Easter Islanders rely entirely on feasts to break the monotony of their lives. Formerly, frequent wars gave a thrill to existence, and when peace reigned festivities were continuous, according to Eyraud. Every lineage or village considered it a duty to entertain in turn the other villages or lineages. As soon as a feast was finished in one place a new one began at another point of the island.

The general name for feast, used in tales, is *koro* which applies also to the big house erected for festal occasions. Whatever the real meaning of *koro* might have been, the feasts were named according to their purpose, their nature, and the time of the year when they were celebrated. The main feasts which have been recorded by missionaries or mentioned in traditions are the *paina*, the *are-auti*, the *tangata-manu* (feast of the bird-man) at Orongo, and the ordinary *koro*, including feasts to honor a parent and those given at harvest time by rich landowners. "When the crops were ripe, every plantation, whatever its products were became the subject of a feast for a village or even for several villages. Everything depended on its extension and the importance of the owner" (190, p. 428).

At every feast there was a great display of food, especially of chickens. Food was piled on stages or conical towers. It is said that feasts were often disturbed by quarrels among warriors (*mata-toa*), who demanded large contributions of food and fought for shares (190, p. 498).

PAINA

The exact purpose and form of the *paina* feast is rather vague. Various visitors have collected widely differing accounts. But the *paina* apparently celebrated the memory of a dead parent, generally a father, and was an indirect part of the funeral duties of a son. The feast could be held soon after the death or several years later. It was always celebrated in the summer, and the right time for it was indicated by the position of the three central stars in Orion. The entire family of the deceased, especially the brothers and cousins, contributed to the expense of the ceremony. Over a period of years they raised chickens, planted extensively, and probably stored food to

10: Cooke D-5 (1886) 1899
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likely to precipitate them into the depths below. A path of planks has been laid to the edge of one of the openings, the more readily to enable the natives to obtain the water, which, as may well be inferred, is brackish and unpleasant to the taste and thoroughly impregnated with animal and vegetable matter, vast masses of the latter being in a constant state of decay. 312

The climate can scarcely be otherwise than salubrious and healthful. The southeast trades from October to April blow fresh at the beginning and end of the season. During our stay in December they were moderately strong, and the weather continued exceedingly pleasant. For the remainder of the year the winds are uncertain, westerly prevailing perhaps; the weather is changeable, and there is abundance of rain. Electric storms are unknown. 132

A psychrometrical record taken both on board ship, and to a very limited extent ashore, accompanies this report; as also a copy of the meteorological record from the ship's log during our stay at the island. In the latter the figures in the column "wet bulb" are not entirely reliable, by reason of the inadequate nature of the cotton siphon, which consists merely of a few strands of ordinary lamp wick and does not cover the bulb. With the exception of the two craters of Rana Kao and Rana Roraka, the bottoms of which form lakes, as already stated, and which are isolated and far from the habitations, there is no decaying vegetable matter to be found worthy of note, and the island may therefore be said to be free from malaria and the diseases of paludal origin. During the rainy season an occasional case of remittent appears, but it is of mild type; medication is not resorted to, and recovery takes place when dry weather sets in. So healthful is the climate, so simple are the habits of the people, and so isolated are they from contact with the outer world, and, consequently, the numberless malign influences which there hold sway, that diseases of any kind are very rare among the Rapa Nuis, and they seem to be exempt from the ordinary ills of humanity. There are no "medicine men" among them, and they have no pharmacopœia worthy the mention. 164 [756 278]

During inclement weather a trifling "cough"—occasionally a case of pneumonia—a mild attack of rheumatism, may appear, and mention is also made of cerebral neuralgia. During our visit there was not, to the best of our knowledge, a case of acute disease on the island.

It is stated that from May to October occasional cases of asthma show themselves, which the natives attribute to eating deep-water fish which have fed on a certain marine plant, the name of which the writer was unable to ascertain. This may be taken as delusion; and it may be mentioned in this place that a well-marked case of asthma, in the person of one of the *Mohican's* firemen, was notably worse and suffered severely during the entire period of our stay at the island. 164 753

A disease of the soles of the feet, which the natives called *kino*, consisting, according to their statements, as understood, of fissures and ulcer-